DOCUMENT RESUME

ED 189 916 HE 012 798

AUTHOR	Van de Graaff, John H.
TITLE	Can Department Structures Replace a Chair System? Comparative Perspectives.
INSTITUTION	Yale Univ., New Haven, Conn. Inst. for Social and Policy Studies.
REPORT NO	YHERG-46
PUB DATE	Jun 80
NOTE	28p.
AVAILABLE FROM	Higher Education Research Group, Institution for Social and Policy Studies, Yale University, 17A Yale Station, New Haven, CT 06520
EDRS PRICE	MF01/PC02 Plus Postage.
DESCRIPTORS	Administration: *Administrative Change; *Administrative Organization: *Change Strategies: College Faculty: Comparative Education: Cross Cultural Studies; Cultural Influences; *Department Heads; *Departments: Foreign Countries; Higher Education: *Intellectual Disciplines; School Organization
IDENTIFIERS	*West Germany

ABSTRACT

The departmental concept, while widely accepted in the Anglo-Saxon nations as a way to organize educational institutions into homogenous groups, is not used in many continental European countries and elsewhere. This paper analyzes various structures for organizing academic institutions at lower levels in certain national systems, dissects the most prevalent views of the departmental concept, and explores certain efforts at departmental change which have been undertaken abroad since 1960, particularly in West Germany. Problems underlying departmental reform are: administrative efficiency: disciplinary specialization versus cooperation: teaching versus research: participation in decision making; and the extent of personal dependence of junior academics on individual senior professors for degrees, promotions, and career advancement. In contrast to the departmental systems in the United States and Great Britain, which have undergone few reforms, the chair systems of Germany and France, in particular, have been extensively modified and consolidated. The overall effect has been favorable, since the Germans, in particular, have developed more flexible structures for younger professors to work in. Each country, however, will organize its academic institutions according to its traditions and preferences, and it would be ill-advised for other nations to slavishly imitate American departmental structures. References are appended. (DC)

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CAN DEPARTMENT STRUCTURES REPLACE A CHAIR SYSTEM?

COMPARATIVE PERSPECTIVES

by

John H. Van de Graaff

YALE HIGHER EDUCATION RESEARCH GROUP
WORKING PAPER

YHERG-46

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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June 1980

John H. Van de Graaff
Research Associate

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HE 012 798

Wherever extensive structural changes or reforms at the academic grass roots are debated, the concept of departments is certain to enter the discussion. This occurs both where something called the "department" forms a basic building block in the system, as in the United States or Great Britain, and where units other than departments prevail, such as chairs or institutes, in West Germany or Italy. In the Anglo-Saxon nations, since departments dominate the academic scene, they are easily attacked by sweeping references to departmental "hegemony" or simply "departmentalism," which is said to inhibit the attainment of such unimpeachable ideals as interdisciplinary cooperation, good teaching, or creativity itself. In the continental countries reformers invoke the notion of the department as a vehicle for innovation, often to foster the pursuit of just such ideals. Yet innovation through departments is itself an easy target for critics who refer darkly to standard attacks on departments in nations where they are an integral part of the structure.

So the debate comes full circle, even as it bursts national boundaries. Proponents and opponents alike often overlook fundamental institutional characteristics, both of their own systems and of others, and perceive inadequately the way in which "departments" or "chairs" or "institutes" or "seminars" or "centers" fit into the broad structural context of the given country, usually as the result of long historical evolution. This paper seeks to analyze the way in which institutions at the lower levels of the academic system have developed in certain national systems, dissect the various implications of the departmental concept, and review certain efforts at change which have been undertaken since around 1960, especially in West Germany, as a major country on the European continent. The notion of a department can involve a number of problems or issues, and their significance will vary greatly from country to country.

Problems Underlying Reform

The first key problem, which underlies almost any effort at structural change, whether in universities or in other institutions in society, is the question of administrative efficiency: What structure permits the most effective management of an institution, in terms of the missions or functions which it is expected to perform? Depending on the importance of particular missions for a specific unit, a given structure will tend to operate more or less efficiently. Academic departments, or their equivalent, are regarded as key arenas for the performance of a university's core functions, such as pure or applied research, graduate or undergraduate teaching, professional training, or service to society. Whatever the mission, however, certain organizational characteristics are widely held to facilitate the effective operation of academic units, such as flexibility, openness to cooperation between units, and capacity to coordinate internal activities.

The subsidiary question of size arises here. Large academic units are likely to be too cumbersome either to cooperate effectively with others or to pull together their internal processes. If done well, their administration is so demanding that the head easily loses touch with the day-to-day functioning of the members. Very small units may appear to possess flexibility, but in practice their adaptability is low, both internally and externally. If they are too numerous and fragmented, any kind of coordination, in the sense of encouraging effective differentiation, is extremely difficult.

The second problem to be distinguished is that of disciplinary specialization versus cooperation. The way in which units at the lowest level of the academic system are structured can greatly affect the way in which a scholar pursues his academic activities both within the unit and

outside it. "For most students and many members of staff, indeed," as a British study observes, "it may not be an exaggeration to say that the subject-department is the university" (Moodie and Eustace, 1974, p. 60; emphasis in original). Conversely, the way that the university organizes its departments or institutes itself serves to define academic disciplines. And since these divisions between departments tend to be similar for all universities within a national system, the pattern has implications far beyond a particular university.

The third key issue, which is to some extent related to disciplinary specialization, is that of teaching versus research. The classical continental structure of the chair-based institute tended in practice to favor research, at least in the context of the German university. At the level of ideology, it is true, teaching was held to be equally important, but it was to take place in close relation to research, and thus it was to be directed at the ablest students; with the expansion of the recent decades, such a structure has proved ill-adapted to providing the majority of students with lower-level instruction. In contrast, the research mission has been a much less explicit concern of the American department and yet it has proved relatively effective both for teaching at various levels and for the pursuit of research.

The next problem must be sharply distinguished, in principle at least, from the previous two. This is participation in decision making, which has been an area of great controversy in Europe, while it is far less problematic in the United States. The chairholder in the classical "European mode" of academic government (Burton Clark, in Van de Graaff, et al., 1978, pp. 174-5) possessed absolute formal authority over his domain (almost no women attained such heights). The German Ordinarius, as the most highly-developed of the species, reigned over a self-contained

institute, with facilities such as a library, laboratories and lecture rooms, and personnel hierarchy extending from senior lecturers with all formal qualifications for a chair down to assistants still working on their doctorate. Any involvement in decision making by these lesser colleagues of the Herr Professor was solely a result of his personal magnanimity. Consequently, demands for democratization became irresistible as soon as the lid blew off the traditional German universities in 1967. In fact, as we will see, certain institutes became arenas for initial experiments with tripartite parity--equal representation of professors, assistants, and students in academic organs. This was implemented legislatively to a limited extent before the Constitutional Court reaffirmed a substantial degree of professorial dominance in its judgement of May 1973.

The fifth and final problem, closely related to that of participation, is the extent of personal dependence of junior academics on individual senior professors for degrees, promotions and career advancement. Again, this has been far more of an issue in Europe than in the United States. (Here, as with participation, the British universities fall somewhere between the U.S. and Europe.) Again using the German case by way of illustration, the student was supervised by a single professor first for the doctorate and then for the advanced qualification of the Habilitation; at least as often as not, the same professor served successively as Doktorvater and as Habilitationsvater. If the professor died during the ten-year (or longer) span of the relationship, it could mean the end of the pupil's career as surely as that of the professor. There was usually no supervisory committee to step in, and since the professor conventionally possessed a monopoly of authority within the institute, as its director, the student could not necessarily fall back on anyone else. Since a typical scholar did not earn the Habilitation until his mid-thirties, and

might not receive a call to a chair of his own for years after that, if ever, the system left many able academics dependent on professors as institute directors well into middle age or even until retirement. I recall vividly talking with a physicist in such a situation in Frankfurt in 1969; a dignified researcher in his forties, he was at the mercy of his director's secretary even to have a letter typed.

These five issues divide rather neatly into those which have generally been more significant in the United States (and to a certain extent in Great Britain), and those which have provoked greater debate (and sometimes change) on the continent in Europe. The questions of specialization versus interdisciplinary cooperation, as well as the allied matter of teaching and research emphasis, have tended to arise in the American context, for reasons which we will explore briefly in a moment. Problems of participation, personal dependence on senior staff, and administrative efficiency have become acute more often in Europe than in the U.S., and these are the themes to which we will devote greater attention, particularly in terms of the measures which have been undertaken to alleviate them.

The Departmental System in the United States

Ultimately, the concept of department has its deepest roots in the United States, and so our look at particular national systems should commence there. The structure crystallized relatively late in American universities, with the founding of a large number of new departments for a period of some two decades around the 1890s (Veysey, 1965, pp. 320-22). Although this development was to a significant degree German-inspired, and thus partly oriented toward bringing the mission of research within the American university, the departmental structure as it gradually evolved had little to do with the German structure of chaired professors at the head of institutes. Undergraduate instruction remained with the university,

and most departments provided it to one degree or another, thus maintaining a significant diversity of purpose within their ensemble of activities. Similarly, although the structure of American universities in that period was not exactly highly democratic, it was distinctly more so than the German pattern, and participation tended to increase over time, along with departmental autonomy. As early as 1911, for example, "attempting to improve the morale of its younger faculty, the University of Chicago reduced the power of its department chairmen... and allowed them to be elected rather than appointed by the [university] administration" (Veysey, 1965, pp. 322-3).

In this gradual, piecemeal fashion, the organization of the American department was established in the early decades of the present century, well before the postwar expansion of enrollments. The department increasingly took shape as a collegially structured unit, to be sure one in which the chairman had a major role but also with substantial degrees of staff participation. Today, even where the chairman is appointed by the university administration, department members are normally consulted, and the position often rotates among at least the senior ones. Moreover, the chairman's position is not associated with any direct continuing supervision of members of the department, except insofar as he or she exercises general oversight over the teaching of the department and is sporadically involved in staff promotions. But these functions are performed strictly in the role of chairman, not in the role of a senior professor with continuing responsibility for apprentice scholars, as in the typical German institute. Even those department members who have not yet earned the doctorate are conventionally completing it at another university, and once they attain the degree they become in a basic sense full-fledged members of the department. Participation in departmental affairs is often mildly stratified by rank, with certain

matters, such as senior professorial appointments, reserved for decision by the senior staff (normally those with permanent tenure). The departmental chairman may have certain reserve powers over matters which he decides as he chooses. But a broad range of academic matters is in fact decided in accordance with the expressed views of the members of the department as a whole.

In general, then, a substantial degree of participation by all members of the department is now taken for granted in the United States. Studies have indicated, in fact, that participation tends to be greater in the better-known, more productive and research-oriented universities and departments (Demerath, et al., 1965, pp. 210-11; Platt and Parsons, 1970, pp. 163-6; Dressel, et al., 1970, p. 39). Therefore if any general conclusions at all can be drawn from the American experience, participation seems to be associated with greater productivity in research. In any case, the United States evidence certainly lends no support to claims that participation would necessarily reduce the quality of academic endeavor.

Accordingly, recent arguments against the departmental structure in the United States (McHenry, et al., 1977; Dressel, et al., 1970) attack primarily its alleged tendency toward disciplinary specialization and overemphasis on graduate, as opposed to undergraduate, education. Individual staff members, especially at the large, highly-regarded universities, are usually comfortable with the departmental structure, for they see it as consonant with their own preference for specialized research closely linked to their teaching in graduate seminars and to the dissertation projects of their graduate students. Structures diverging from the departmental model generally are directed at undergraduate teaching, and particularly at four-year programs leading to the bachelor's degree. However, since that degree is still widely regarded as providing primarily a broad liberal

arts education, rather than specialized or professional training, the novel programs actually represent less a drastic shift of mission than a substantial reorientation of methods and approaches. They seek to free staff and students alike from rigid devotion to the traditional subject matter of the disciplines, and to promote the notion that the disciplines are based on common underlying skills, which are applicable in a wide range of contexts. Therefore the new structures generally bring together academics from a variety of disciplines in newly-defined units, such as residential "cluster colleges" (University of California at Santa Cruz), interdisciplinary "schools" (Hampshire College in Massachusetts) and "problem-based departments" (University of Wisconsin at Green Bay; McHenry, et al., 1977, Chs. 5-7).

Departments in Great Britain

Before turning to the continental, and particularly the German universities, we must take a brief look at the intermediate case of Great Britain (Moodie and Eustace, 1974). In characteristically ambiguous fashion, the British universities have partially obscured the nature of their structures by using the word department to denote what on the continent would naturally have been termed a chair system. The British professor, until the expansion of the 1960s, was usually the sole professorial member of his department and indeed was generally appointed as its head. As such, he normally has sole formal authority for the conduct of its activities and is answerable to higher organs in this regard. Nevertheless, the British never went as far as, say, their German counterparts in identifying the department with the professor. While the Germans generally established parallel institutes in a given field to accomodate two or more professors, the British increased the number of professors in existing departments. It was understood that nonprofessorial staff were appointed

to the department, and not as the personal subordinates of the professor, and the latter's power of patronage over their careers was not as extreme. In general, although precise data are lacking, the degree of professorial autocracy and hierarchical authority in Britain appears to have been substantially less than that on the continent.

At the same time dissatisfaction with British professors' predominance in decision making, both within departments and in the university, grew widespread by the early 1960s. In Halsey and Trow's study of British academics, over three quarters of the respondents agreed that redbrick universities were all too often "run by a professorial oligarchy" and that departments with more than eight staff members should include more than one professor, while more than half concurred that most departments would do better with a rotating chairman than a permanent head (Halsey and Trow, 1971, pp. 377-8). In fact, agitation by nonprofessorial staff for greater involvement in academic affairs had begun much earlier, intensifying in the postwar period. It had been met with modest measures, most notably inclusion of nonprofessorial staff on many of the ubiquitous committees which do a large part of the effective work of decision making. As student demands arose in the 1960s, this venerable device of cooptation onto committees was employed again. Within departments in particular, a good deal of democratization has taken place, through the establishment of staff-student committees or the forming of departmental boards including senior staff and representatives of junior staff and students. In the vast majority of cases, however, these boards and committees, whether formally or by convention, remain advisory to the head of department, who is still responsible to higher authority for the activities of the department. This is different from American practice, where the chairman would be expected, more often than not, to follow departmental opinion when clearly expressed.

Interestingly, the Canadian case probably falls generally between the British and the American. In Canada, the term head, rather than chairman, is used more often than south of the border, and the head is more often seen as answerable to the administration. On the other hand, differences of rank and power among department members are distinctly less pronounced than in Britain, and quite comparable to the American situation.

Basic Comparisons

In contrast to Britain and the United States, where substantial reforms have not occurred, and indeed have never really been contemplated on a large scale, certain countries of continental Europe--notably Germany and France--have undertaken quite extensive restructuring. In Germany, whose traditional system we have characterized in some detail so far, two main sorts of change are involved. First, the faculties have for the most part been broken down into somewhat smaller units, which are called "subject areas" (Fachbereiche, often abbreviated FB); this has been a reform from above. Second, there has been a trend toward combining the smaller institutes, so as to attenuate some of the chair system's inadequacies. This thrust has come partly from below but has also been imposed from above by governmental mandate.

In France, where the chair system was never as strongly developed, the comprehensive Orientation Act of 1968 first broke up the existing universities and many of the faculties. Then over 600 "units of teaching and research" (unités d'enseignement et de recherche, abbreviated UER) were formed. These UERs, most of which were probably in some sense new entities then coalesced into sixty-odd more or less new universities, sometimes after protracted negotiations and prodding from the government. In contrast to the FBs in Germany, the French UERs are not formally subdivided.

In graphic form, Figure 1 presents data giving an approximate comparison of the contemporary situation in the four main countries under consideration.

With the exception of France, where the data are averages for all universities, the other countries are represented by small samples of fairly large universities. Medicine and engineering are omitted throughout, as are other professional schools in most cases. This was done to enhance comparability, since the internal organization of the professional fields varies significantly both between and within countries. What we have therefore, are estimates of the relative number of departments or equivalent units, and of the staff within them, in the basic disciplines of the humanities and the natural and social sciences, in the four countries. Although the data in no way yield precise comparisons, it is important to attempt a rough quantitative picture, since the element of size is significant for our analysis.

The American department falls approximately in the middle of the range portrayed, with around 30-35 units per university, and 22-25 staff of all ranks in each unit. German structures, in their partially reformed state, lie at both extremes: the institute at the smaller end of the range, and the subject area or FB at the large end. Among smaller units, the British department falls between the German institute and the American department, closer to the latter, while towards the larger end the French UER lies about midway between the U.S. department and the German subject area. Evidently the Germans, with their two-pronged approach, are straddling the range covered in the other countries, but it seems likely that in a purely quantitative sense the institutes may come closer to the departmental "target" than the FBs.

Continental Reforms: The Case of the German Federal Republic

In the postwar period, the West Germans devoted nearly two decades, until the early 1960s, to a restoration of the university much as it existed prior to the Nazi seizure of power in 1933. Around 1960, as impulses for reform began gradually to gather momentum, certain of the problems outlined above

emerged as central to the discussion of structures. Reformers sought ways of improving the functional efficiency of the university; in that connection, fostering interdisciplinary cooperation was a concern, as was the strengthening of teaching, especially for lower-level students. The problem of participation, with the related question of the dependence of junior academics on chairholders, was debated all along, but became acute only with the outbreak of student unrest in 1967.

Concern with efficiency centered on two basic aspects of traditional university organization: First, the practice of building institutes around a single chairholding professor, and, secondly, the large size of many faculties, which rendered them ineffective as decision-making and coordinating bodies. Opinion regarding single-professor institutes was changing at the end of the 1950s, albeit slowly. In 1960, the Science Council--a partly governmental, partly professorial advisory body--still was concerned that institutes "should not be too large, if the institute director is still to be able to pursue research himself and maintain personal contact with his assistants and pupils." When funding new chairs, therefore, the Council argued that "the establishment of parallel institutes is basically to be preferred to the development of excessively large institutes" (Wissenschaftstrat, 1960, p. 72). To be sure such institutes were intended to be located physically as close together as possible, to permit the sharing of expensive facilities and equipment; yet the system was inherently costly.

Within just two years the Science Council altered its opinion. Citing the existence of "an oligarchy of chairholders and a monocracy of institute directors," which contributed to the "isolation and particularism" of the institutes, in 1962 the Council proposed that "as a rule" several chairholders should share an institute (Neuhaus, 1968, pp. 12-14), with provision for the directorship to rotate among them. Nonetheless, change was slow in coming. In 1969, for example, 63 percent of the institutes at the University

of Frankfurt had only one professor (Van de Graaff, et al., 1978, p. 33).

In the years prior to the outbreak of student protest, the most widely-regarded attempt to overcome the functional inefficiency of the institute structure was the establishment of a Physics Department at the Technical University of Munich (Mössbauer, 1965; Wild, 1966). Nobel Laureate Rudolf Mössbauer made the founding of this department a condition of his return from the United States. The existing five chairs, with their institutes, were amalgamated into one department; within a year six new chairholders were recruited, including two for chairs which had remained vacant for years under the institute system. A three-person administrative committee was established, with a chairman elected annually. Under this structure nearly all administrative and academic tasks could be shared or delegated more effectively, avoiding the enormous burden born by the chairholder directing a traditional institute. The disadvantage of such a foundation lay in the need to fund additional chairs; yet some of these additional costs were clearly saved by the sharing of common facilities and resources within the department.

At the level of the faculties, criticisms centered on their large size--at least in the case of the faculties of philosophy and natural science. Since all chairholders were ex officio members of the faculty councils, their dominance of the few representatives of other groups became ever greater, while sheer numbers rendered the council ever more cumbersome as a decision-making body. Moreover, since the professors normally had sole control of their institutes, where they could carry on the bulk of their academic work independently of the faculty, they had little interest in pursuing collective, faculty-wide policies which might restrict their independence.

The basic response to these difficulties was to divide at least the larger faculties into smaller units. These came to be called "subject areas,"

as we noted above, and that term is now standard; indeed it is in effect mandated by the Federal Framework Law of 1976, which provides (in Paragraph 64 [1]) that: "The subject area is the basic organizational unit of the university [Hochschule].... Within the budgetary framework it takes care that its members, its academic faculties and its operating units [Betriebseinheiten] can fulfill the tasks incumbent upon them." This structure was proposed in 1962 by the Science Council in its "suggestions on the Form of New Universities," and it was first implemented in the Ruhr University of Bochum, founded in 1965 with 18 "divisions," or Abteilungen. The term Fachbereich (FB) became current soon after, through state-level legislation. Although the laws do not specify the number, most universities have formed between 8 and 22 FBs, somewhat depending on their size, which replace the 5 to 7 faculties of the traditional university.

In its original 1962 proposal for subject areas, the Science Council argued that "this system has precedents in the departments of English and American universities" (Neuhaus, 1968, p. 16). In 1973, the rector of Bochum termed it "a compromise" between the typical German division into faculties and "the Anglo-Saxon-type department." In fact, as Figure 1 suggests, the FB system is probably much closer to the old faculties than to American departments, as least in terms of size. The average university comprises fifteen FBs, and the average FB services over 1000 students, with some 75 teaching staff of all ranks. This means that the typical FB is still a rather large unit, representing a limited degree of differentiation.

It is not surprising, therefore, that the reform legislation leaves open the possibility of maintaining smaller units akin to the institutes. And in practice, the vast majority of FBs are subdivided in some fashion. However, the restructuring process has manifested two concerns which distinguish the new system somewhat from the old. The FBs are intended to function as "the basic organizational units of the university," in

the words of the Federal Framework Law, with emphasis supplied, and thus they are to serve to some degree at least as overseers and coordinators of their "operating units," or Betriebseinheiten, which are often still called institutes. As we stressed, the old-style faculties were rarely if ever capable of performing this function effectively. Secondly, the institutes are now intended to be larger than before, so as to include several professors (a category which itself has been broadened) and permit a genuine degree of collegiality.

Although the available evidence permits only a highly impressionistic assessment, these objectives of the reform are being at best only partially achieved. Simply in terms of size, the new-style institutes do not appear to be a great deal larger than the old ones, on the whole, and certainly the typical institute remains smaller than a characteristic American academic department. Amalgamations of the magnitude of Mössbauer's physics department (which in the meantime has been rechristened a Fachbereich) are not common. At Frankfurt University, there were some 120 institutes (excluding medicine) in 1969; by 1978, there were 84 operating units in 18 non-medical FBs--not a very striking reduction in number. From 1971 to 1977, the annual reports of Frankfurt's presidents relate highlights from an extensive process of negotiations concerning the subdivision of FBs, between the Hessian Ministry of Education, the university standing committee on organization, and the various FBs. Initially at least, the ministry rejected several plans for subdividing particular FBs on the grounds that the units proposed were not large enough. In the end both the ministry and the university committee appear to have relented in most cases, including that of the professor of Jewish studies, who held out successfully for his own institute! Commenting on an analogous case in Bavaria, the rector of Erlangen University noted that the initial resistance of some professors to amalgamation of their institutes had subsided, although "less through acceptance of the advantages

of the new structure than due to the fact that the status quo ante has essentially been maintained." Fragmentary as our data are, we must nonetheless conclude that the formation of subject areas and larger institutes does not represent a far-reaching reform in terms of increasing the efficiency of the German universities.

With this basic review in mind, we can now cover the remaining problems much more briefly. The aim of combatting overspecialisation and promoting interdisciplinary cooperation was a major theme of German reform proposals from the early 1960s on. To some extent, this was to be achieved simply by the formation of smaller FBs, just as the formation of UERs as the building block of the new-style universities in France was to foster "pluridisciplinarity," a major aim of the 1968 Orientation Act (Van de Graaff, et al., 1978, p. 58). In Germany, other measures were envisioned as well, notably the establishment of central institutes in each university independent of faculties or FBs. In part, these central units were to bring together chairs in conventional disciplines of relevance to a number of other fields, such as philosophy, mathematics, or history. Alternatively, they could be devoted to particular topics, problem areas, or methodological approaches, whether of a traditional or innovative sort (Neuhaus, 1968, p. 13). Examples of the latter would include central institutes for educational problems, occupational studies, empirical social research, or regional studies. Environmental problems and didactics of university instruction (Hochschuldidaktik) have been relatively recent favorites.

In practice, the Germans seldom have attempted to establish central institutes for key traditional disciplines such as philosophy or mathematics. Rather, such fields have generally formed their own subject areas like the other FBs. Whether this emancipation from the control of a larger faculty has enabled them to promote cooperation among specialists in the problems of various fields is difficult to say. The establishment of topic or problem-

oriented institutes has been more frequent and tends to have something in common with the establishment of analogous institutes in other countries, including the United States. However, the difficulties are likely to be greater in Germany, with its strong legacy of highly specialized disciplinary institutes. American departments may be rooted in conventional disciplines as well, but they are an inherently more flexible form of organization and often have less control over such facilities as libraries and class rooms.

The improvement of teaching has been an underlying objective throughout the reform process in Germany. In accounts of Mössbauer's establishment of the physics department in Munich, the American-style structure was admiringly cited for its capacity to spread the teaching load among a larger number of staff of relatively equal status, thus permitting more intensive student-teacher contact in each instructional setting (Mössbauer, 1965, p. 7). Whether this aim has been fully achieved through the formation of subject areas is doubtful. Although the number of professors has been significantly increased, the principle of assigning primary responsibility for teaching and examining to them as senior staff has generally not been altered. On the other hand, there are certainly many FBs where tasks are more equally divided in practice. Moreover, the system permits the establishment of important new fields, such as information and data processing (Informatik) as independent subject areas; these are inevitably small at the outset, and their new members are likely to be young and positively disposed to teamwork. In this sense, the system introduces an element of flexibility and potential for differentiation that was not present before.

The issue of participation, which previously had lurked in the background, became a hotly-debated question with the outbreak of nationwide student unrest in 1967. Up to that point, students and junior staff had token representation in some decision-making organs, although virtually never in the institutes, where the chairholders reigned supreme. Prior to

1967, the students rarely demanded more than the extension of this minimal degree of formal participation to all arenas where it did not yet apply, including the institutes. After the onset of unrest, the basic positions in the debate shifted with astonishing rapidity, and by the end of 1967 both students and assistants were generally demanding tripartite parity (Drittelparität): that is, professors, assistants and students were each to have one-third of the seats in any decision-making organ (Albers, 1968). There ensued a flood of proposals for democratization, with counterproposals from the professorial side that generally conceded 15 to 20 percent of the seats to the students and the assistants, respectively. Many schemes applied tripartite parity to the institute level; some received fairly broad support within particular institutes, from professors as well as students and junior staff; a few of these models were implemented (Heer, 1969) at least for a time, mostly in education and the social sciences. Among the schemes which were actually practiced, the most widely publicized was that of the Otto Suhr Institute (for political science) at the Free University of Berlin (Schwan and Sontheimer, 1969, especially pp. 152-173). Through intensive discussion, a tripartite structure was worked out and accepted by a majority of each group within the institute; it was then rejected by both the Faculty of Philosophy and the Academic Senate of the Free University. Nevertheless, enabling legislation was hastily enacted by the Berlin legislature to permit such experiments prior to the enactment of more comprehensive university legislation, and thus the statutes were implemented on an interim basis.

From 1968, most of the eleven states, like Berlin, enacted laws extensively restructuring their universities. Contrary to the general impression, however, these formally introduced tripartite parity only in a small minority of cases, primarily at the level of the university-wide council, whose only significant task is the election of the university president (or rector). Of the laws which specifically referred to partici-

pation at the institute level, none, including Berlin's, would permit the professors to be outvoted by the other groups; in other words, the professors had to have at least fifty percent of the votes in any decision-making organ at the institute level. This structural tendency was reaffirmed and strengthened by a major decision of the Federal Constitutional Court in May 1973, which stipulated that professors had to have a majority of votes in any organ dealing directly with teaching, research or professorial appointments. The Federal Framework Law of January 1976 bolstered the professorial group still further by giving it a veto in matters of research or appointments. However, the law also stipulates that "as a rule" institutes or "operating units" must be administered collegially; in practice, therefore, the institute council or board will include all professors plus a smaller number of representatives of the other groups.

This kind of collegial governing structure, together with the now conventional provision for rotation of the administrative headship of an institute among the senior members, guarantees not only a substantial degree of participation for other groups, but it also reduces the dependence of junior staff, as well as students, on professors. The role of administrative head is now clearly divorced from that of personal supervisor of the academic progress of junior scholars. Moreover, requirements for the Habilitation have been liberalized to eliminate the necessity for personal sponsorship by a particular professor; a younger scholar may apply independently for admission to the Habilitation process, and he or she may submit a previously published work, or even a series of works, rather than the traditional formal thesis. However, the practical effect of all of this may be limited, since it still appears to be customary for younger scholars to work with a single person, on the whole, and thus a continuing tendency for dependence cannot be ruled out.

Conclusion

On balance, the evidence and arguments of this paper present the department as a plausible alternative to chair-based institutes. The latter structure evolved in most European countries at a time when universities catered to a small elite. The research enterprise, where it existed, was far less complex than today, and it was easily undertaken in tandem with instructing the few students who had survived the rigors of academic secondary education. In contrast, partly by historical accident, the department developed mostly extensively in the country where mass higher education first flourished--the United States. It adapted easily to teaching large numbers of students, and key aspects of its structure also proved conducive to research.

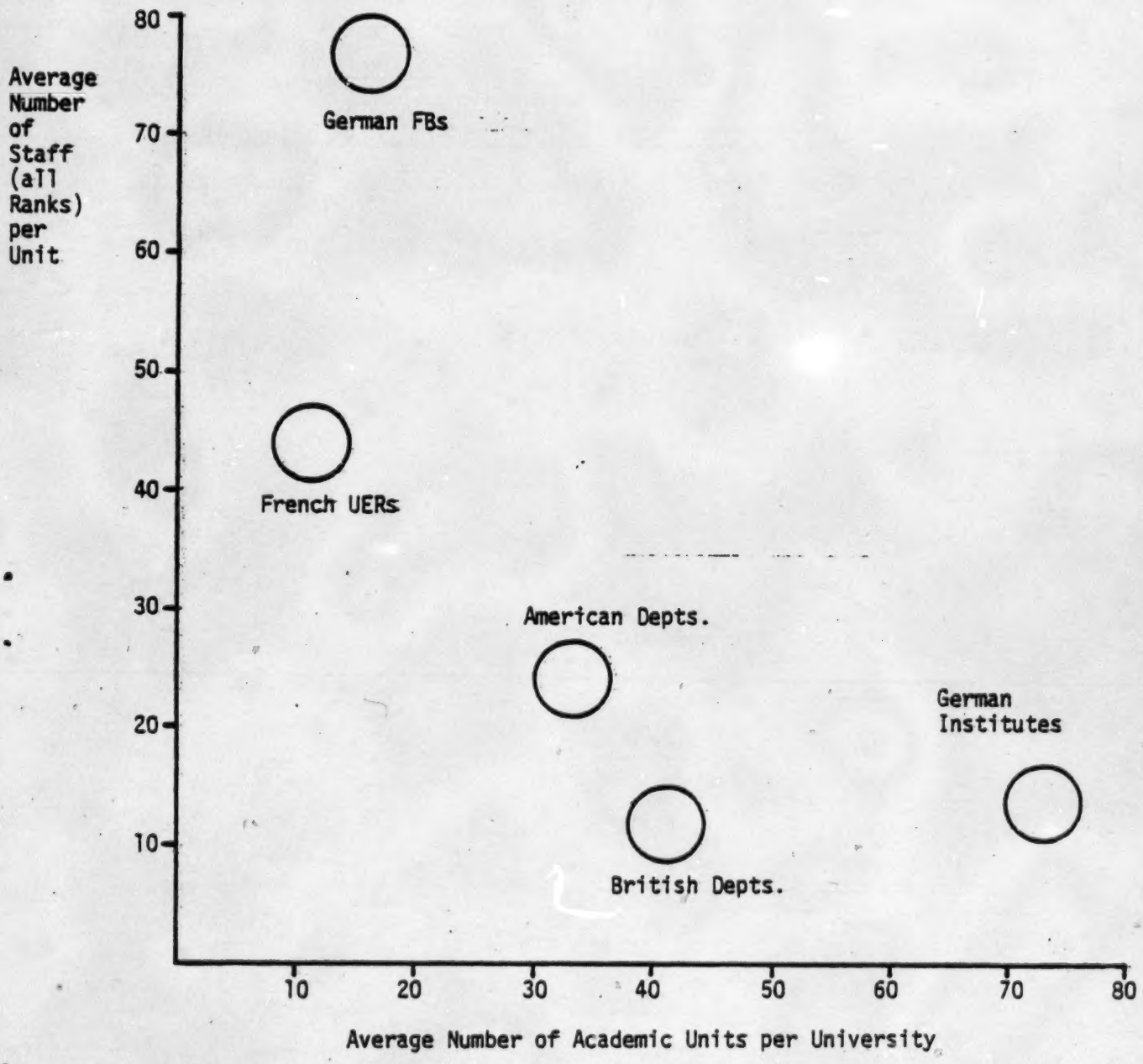
We have cited a handful of studies which indicate that in the United States system collegiality tends to be greater in the larger, higher status, research-oriented universities, and that the more participatory departments are more productive. Comparative research also provides some evidence for the greater effectiveness of the collegially structured department. For example, in the case of Turkey, where departmental and chair-based universities coexist, fragmentary data suggest that departments are in fact more conducive to scientific productivity (Tinto, 1974). In a much broader historical analysis, Joseph Ben-David argues that, although the institute system did facilitate the development of German science for a number of crucial decades in the nineteenth century, it soon proved relatively inflexible, forshadowing the massive shift of scientific leadership to the United States in the first half of this century (Ben-David, 1971).

In its original form, the German-type institute was essentially a self-contained unit--a university in miniature, with libraries, classrooms, laboratories, and so forth. A century ago it seemed natural to house all of this under one roof and place it under the directorship of a professor

who was the authority in his field at the university. But with the passage of time, the institutes, which were conceived as integrative structures, became overloaded and inherently fragmenting, as the frontiers of the academic enterprise grew both ever more specialized and more dependent on establishing links between formerly distinct fields. One major reason that American departments have been better able to cope with these trends is their relatively limited purview: they rarely have libraries of their own; they often share laboratories, scientific collections and museums, which may have their own administration; many aspects of personnel and general administration are handled mainly at higher levels. This permits the departments as such to concentrate on such matters as curriculum, recruitment, and those aspects of research which they can discuss collectively.

Obviously, other nations would be ill-advised (and are unlikely anyway) slavishly to imitate American structures. However, the thrust of changes implemented so far by Germany, and to some extent by France, clearly moves them towards key aspects of the U.S. system. In Germany, the establishment of more coherent subject areas to replace the faculties puts them in a better position to assume certain tasks previously handled by the institutes. The principle of rotation divorces the role of directing an institute from the responsibilities of individual professors. At all levels there is a trend toward collective decision-making, and status differences between various categories of staff are narrowed. These developments are certainly healthy, although often limited in their effects. In the end, each nation will have to develop structures appropriate to its traditions and preferences.

Figure 1--Academic Units, by Average Number per University and Average Number of Full-Time Staff (all Ranks) per Unit



Note

For the countries sampled (all except France), larger-than-average universities are included; for the specific institutions and data sources, see below. Medicine, engineering, and most other professional fields are omitted entirely throughout, because their internal organization varies significantly both between nations and within them. Medicine,

especially, tends to have much larger numbers of staff per unit than other fields. In general, part-time, temporary and research staff were excluded; all regular, full-time teaching staff were included.

France. This is the sole case where figures represent national averages. Statistics for staff are from Ministère de l'Education and Secrétariat d'Etat aux Universités, Tableaux des Enseignements et de la Formation: Edition 1976, Paris: Service Central des Statistiques et Sondages, 1976, p. 319. The total number of UERS in non-professional fields was counted from national lists.

Britain. Universities included are Bristol, Lancaster, Liverpool, Manchester and Nottingham. Staff were counted using the 1976 Commonwealth Universities Yearbook.

United States. Included are the University of California at Davis and at Berkeley, University of Illinois (Urbana-Champagne), University of Michigan (Ann Arbor), University of Wisconsin (Madison), Harvard University and Yale University. Staff were counted from figures in W. T. Furniss, ed., American Universities and Colleges, Eleventh edition, Washington, D.C.: American Council on Education, 1973.

Federal Republic of Germany. The following universities are included: For the figures on FBs: Berlin (Free University), Darmstadt, Erlangen-Nürnberg, Frankfurt/Main, Hamburg, Kiel, Mannheim, Marburg, Regensburg, Tübingen; for the institutes: Berlin (FU), Frankfurt/Main, Kiel, Marburg. Figures were taken and counts made from catalogues, reports and other material prepared by the individual universities.

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Institution for Social and Policy Studies
16A Yale Station (111 Prospect Street)
New Haven, Connecticut 06520